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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,195	11/07/2002	Gilbert Wolrich	10559-304US1	1605
20985	7590	12/15/2006	EXAMINER	
FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			LAI, VINCENT	
			ART UNIT	PAPER NUMBER
			2181	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,195	Applicant(s) WOLRICH ET AL.	
	Examiner Vincent Lai	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-17 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14,16,19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10,15,17 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

FRITZ FLEMING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

12/4/2006

DETAILED ACTION

Priority

1. Priority is recognized from PCT/US00/23994, which claims the benefit of 60/151,961.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted were considered by the examiner.

Response to Amendment

3. Acknowledgment is made of the Amendments to the Specification, Title, Drawings, and claims.
4. Objections to the title and specification are withdrawn after considering Amendments.
5. Previous Claim Objections are withdrawn after considering Amendments. Please note that new claim objections are made.
6. 35 USC 101 rejection are withdrawn after considering Amendments.

Drawings

7. The drawings were received on 27 September 2006. The Examiner accepts these drawings.

Claim Objections

8. Claim 25 is objected to because of improper grammar. The claim recites "the one of the registers" and is suggested to be amended to "one of the registers."

Appropriate correction is required.

Response to Arguments

9. Applicant's arguments filed 27 September 2006 have been fully considered but they are not completely persuasive.

Examiner is maintaining the 35 USC 112 rejection. Examiner recognizes that a token may be used; however the term "optional" is being disputed. The term "optional" makes it unclear as to whether the token is an essential part of the invention or not. An optional token is not definite. Also, claims 15 and 17 are now being included in the rejection as an "optional token" is also claimed and was missed by the Examiner.

It is to the understanding of the Examiner that "optional token" may simply just be a naming convention or term; however a cursory review of the claims, without context provided by the Specification, may lend itself to confusion. A different manner to claim

the optional token described in pages 13-14 of the Specification is requested to avoid any confusion that may occur.

Applicant argues, "Cook's branch instructions do not specify a selected register because the register used for evaluating branch conditions is always the condition register."

It is noted that the cited portion of Cooke, column 4, lines 49-64 continue on to describe, in lines 64-67, that the K fields designates one of a plurality of registers, the content of which...is used to compute the effective branch address. Given the K-field is a part of the branch instruction, it is evident to the Examiner that the register does specify a selected register.

It is also noted that claim 1 does not have the same limitations that claims 11 and 21 have, where the specified register is specified by a branch instruction. The interpretation used for claim 1 is that the condition register is the specified register. The Applicant correctly states that the condition register is the default register. The condition register must still be specified in some sort of manner to be used. A default setting still specifies a setting. The distinction between claim 1 and claims 11 and 21 is that the latter claims have the limitation that the specified register is explicitly specified in a branch instruction, which is not taught by Cooke.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 4-5, 7, 15, 17, and 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-5, 7, 15, and 17 teach an optional token and it is not clear as to whether the token is an essential part of the invention or not.

11. Claim 21 recites the limitation "the bit" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

It is unclear as to whether "the bit" refers to a branch control bit or a specified bit.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1- 7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cocke et al (U.S. Patent # 3,577,189), herein referred to as Cocke.

As per **claim 1**, Cocke discloses a computer program product residing on a computer readable storage medium comprising instructions, including a branch instruction (See column 13, lines 7-13: Branch instructions are a type of instruction disclosed) that when executed on a computing device causes the computing device to:

cause an instruction stream to branch to another instruction in the instruction stream to branch to another instruction based on a bit of a specified register being set or cleared (See column 10, lines 24-28: A bit indicates whether a branch target is present), the branch instruction specifying which bit of the specified register to use as a branch control bit (See column 10, lines 28-31: A bit position is given to store the bit which indicated that the instruction has a branch target).

As per **claim 2**, Cocke discloses further comprising:

wherein the branch instruction comprises a bit_position field that specifies the bit position of the branch control bit in a longword contained in a register (See column 10, lines 28-31).

As per **claim 3**, Cocke discloses further comprising:

wherein the branch instruction comprises a branch target field specified as a label in the instruction (See figure 4a).

As per **claim 4**, Cocke discloses further comprising:

wherein the branch instruction comprises an optional token that is set by a programmer and specifies a number *i* of instructions to execute following the branch instruction before performing the branch operation (See column 13, lines 51-69).

As per **claim 5**, Cocke discloses further comprising:

wherein the branch instruction comprises an optional token that is set by a programmer and specifies a number *i* of instructions to execute following the branch instruction before performing the branch operation where the number of instructions can be specified as one, two, or three (See column 13, lines 51-69 and figure 1a: Number of buffers is variable)

As per **claim 6**, Cocke discloses wherein the register is a context-relative transfer register or a general-purpose register that holds the operand (See column 6, lines 7-12: A plurality of registers is disclosed).

As per **claim 7**, Cocke discloses further comprising:

wherein the branch instruction comprises an optional token that is set by a programmer and which specifies a `guess_branch` prefetch for the instruction for the "branch taken" condition rather than the next sequential instruction (See column 4, lines 57-59).

Claim 8 has been cancelled.

As per **claim 9**, Cocke discloses wherein the branch instruction allows a programmer to select which bit of the register to used to determine the branch operation (See column 10, lines 24-32).

As per **claim 10**, Cocke discloses wherein the branch instruction allows branches to occur based on evaluation of a bit that is in a data path of a processor (See column 4, lines 59-61).

Allowable Subject Matter

13. **Claims 11-14, 16, and 19-20** are allowed. Having a specified bit specified in a branch instruction, the specified bit capable of being any of the bits of the instruction, determine whether a branch operation is performed based on the specified bit of the specified register being set or cleared is deemed novel.

Claim 18 has been cancelled.

14. **Claims 15 and 17** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. **Claim 21-25** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Note: Claim 25 is also objected to for additional reasons (See Claim Objections above).

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Lai whose telephone number is (571) 272-6749. The examiner can normally be reached on M-F 8:00-5:30 (First BiWeek Friday Off).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vincent Lai
Examiner
Art Unit 2181

vl
December 7, 2006


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12/11/2006